GOLD HEADED CANE AWARD

JOHN G. KIDD, MD

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Presentation of the Gold Headed Cane to John G. Kidd

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THE GOLD HEADED CANE of the American Association of Pathologists and Bacteriologists has long been a symbol of superior scholarly achievement. It was first awarded in 1919 to Harold Ernst, a cofounder of our association, and tonight it will be my pleasure to add the name of Dr. John G. Kidd to the small group of illustrious men whose dedication to pathology has been recognized by this distinguished award. In a few moments, he will become the twenty-first recipient of the Gold Headed Cane. Before making the presentation, however, a brief account of Dr. Kidd's background and accomplishments would be appropriate.

By the time he was 10 years old, John Kidd had already decided to become a physician. His inspiration was a general practitioner who lived next door in one of the small Texas towns to which John's father, as a Methodist minister, had taken his family to live. John completed his premedical studies at Duke and entered Johns Hopkins Medical School in 1928. There, several significant events propelled him toward a career in pathology.

First, he read and reread several times Cushing's biography of William Osler and was much impressed by this medical genius who had studied pathology for many years before becoming an internist. Osler's dictum, "As our pathology is, so is our practice," was adopted by John.

Second, he directed the Clinical Laboratory of the Tuberculosis Division of Baltimore City Hospital for a year, and third, he took an elective course in pathology during which he completed more autopsies than many present-day residents perform in 2 years.

These experiences were without doubt the deciding factors in Dr. Kidd's choice of pathology as his lifetime profession.

After receiving his MD degree from Johns Hopkins in 1932, Dr. Kidd spent 2 years in clinical medicine, as intern and then assistant resident at the Henry Ford Hospital in Detroit.

In 1934, he was appointed to the staff of Pathology and Bacteriology at the Rockefeller Institute for Medical Research in New York City. During his ensuing 10 years at the Rockefeller Institute, Dr. Kidd was greatly stimulated by the intellectual atmosphere of his new surroundings. He enjoyed the distinction of working and publishing with Dr. Peyton Rous and became particularly interested in immunologic reactions to viruses. Indeed, his later work on asparaginase was an outgrowth of these studies in immunology. During those years at the Rockefeller Institute, Dr. Kidd had frequent opportunities to meet with other leaders in pathology and biology who were working there at that time. These included such great scientists as Landsteiner, Michaelis, Rivers, Cole and Cohn. Moreover, he numbered among his friends such contemporaries as Dubos, Francis, Horsfall, Shope, Cox and Sabin.

The next step in Dr. Kidd's eminent career was his appointment to the Chair of Pathology at Cornell Medical College in 1944. Despite the added responsibilities of undergraduate students, house staff and fellows and the heavy burden of committee work in Washington, he was able to continue his research on cancer and immunology.

In 1949, he and Helene Toolan reported the reaction of lymphocytes to tumor cells in resistant animals: Individual lymphocytes made contact with the cancer cells, often adhering very closely to the surfaces of these cells. Sometimes two or more lymphocytes became attached to a single neoplastic cell. The transplanted cancer cells continued to proliferate in their hosts until the lymphocytes penetrated and adhered to them. Then, one after another in rapid succession, the cancer cells began to die. One or more lymphocytes were commonly observed closely applied to each dying cancer cell.

In 1953, Dr. Kidd noted that groups of mice with transplanted lymphomas were alive and healthy when they should have been dying of malignancy. These animals had been injected with guinea pig serum as a source of complement. Several years later, John Kidd and John Broome, after extensive laboratory investigation identified the anticancer principle as L-asparaginase. The mechanism of action was exquisitely simple and logical: Cells require asparagine for growth. Some cancer cells must be supplied with asparagine because they are unable to synthesize this substance; guinea pig serum is rich in the

enzyme asparaginase, which destroys asparagine so that cancer cells are unable to grow.

Studies of the asparagine–asparaginase system have attained fruition in their applicability to human cancer. It has been demonstrated that L-asparaginase produces remission in some cancers—particularly in cases of acute lymphoblastic leukemia.

Dr. Kidd's contributions to pathology have already been recognized by his peers. He has received the Eli Lilly Award of the American Society for Experimental Pathology and Society of American Bacteriologists, as well as the Leland Fikes Award of the Wadley Institute of Molecular Medicine. He is past-president of both the American Society for Experimental Pathology and the American Association of Pathologists and Bacteriologists.

He was not only an indefatigable worker in the laboratory but also a source of unending inspiration to his students.

It is truly a pleasure to award Dr. John G. Kidd the Gold Headed Cane of the American Association of Pathologists and Bacteriologists in recognition of his scholarly and scientific accomplishments.

HENRY D. MOON

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